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09/727,189	11/30/2000	Fernando De Oliveira	1000-0203	5604

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EXAMINER	
NGUYEN, ALAN V	

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/727,189	OLIVEIRA, FERNANDO DE	
	Examiner	Art Unit	
	Alan Nguyen	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-26 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-26 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 30 November 2000 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

On page 8, line 2, "5095" should read -- 4095 --.

Appropriate correction is required.

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "System and Method of Updating Radio Network Data Through IP Multicast Messages".

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-10, 14-19, 21, 22, 24, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Maggenti (US 6,633,765).

Regarding **claims 1,14, 17, 21, and 24** Maggenti discloses a radio telecommunications network ***(figure 3)***, a method and apparatus of updating radio network data ***("a method and apparatus for providing coverage control for multicast service in a wireless network", column 3, lines 15-17)*** in a plurality of devices deployed in a Base Station (BS) ***(element 104)*** in the network, with the method comprising the steps of:

interfacing the BS with a Mobile Switching Center (MSC) ***(element 102)*** through an Internet Protocol (IP) packet data network ***(column 8, lines 39-48 discloses the use of IP multicast through a router 300 of figure 3 interfaced between the MSC 102 and BS 104)***;

assigning the BS an IP address ***(column 8, lines 7-12 discloses during data communication, end devices are in a data network are assigned an IP address. Column 8, lines 56-61 discloses the MSC receives the IP multicast information from data network 118 and then forwards the multicast to base station 104. The BS must have an IP address to receive the information from the MSC)***;

sending device update data from the MSC to the BS in an IP message ***(column 8, lines 56-61 discloses the MSC receives the IP multicast information from data network 118 and then forwards the multicast to base station 104)***; and

simultaneously updating the plurality of devices by the BS ***(column 8, lines 56-61 discloses that after the base station 104 receives the IP multicast from the MS it forwards the data to all wireless communication devices)***.

Further regarding claim 14, Maggenti discloses the use of a plurality of BSs in a network ***("one or more base stations, 104 and 106", column 3, lines 44-45and shown in figure 3)***, joining each BS in a multicast group; sending device update data from the MSC to the multicast group in an IP multicast message ***(column 8, lines 56-61 discloses the MSC receives the IP multicast information from data network 118 and then forwards the multicast to base station 104. Maggenti discloses in column 5, lines 40-45 the any device can join a multicast group by generating a request and sending it over the local network to the local router in the MSC. Since the base stations do send requests to the MSC as disclosed in column 8, lines 29-31, each base station must join the multicast group in order to receive the multicast message from the MSC)***.

Regarding **claims 2, 18, 22, and 25**, with the features of parent claims 1,17, 21, and 24 addressed above, respectively, Maggenti discloses wherein the step of sending device update data from the MSC to the BS in an IP message includes sending the device update data in an IP multicast message, and the method further comprises, prior to assigning the BS an IP address, the step of joining the BS in a multicast group ***(column 8, lines 56-61 discloses the MSC receives the IP multicast information from data network 118 and then forwards the multicast to base station 104.***

Column 8, lines 22-25 discloses a request to join a particular multicast group. This request is later sent by the base station and forwarded to the MSC 102).

Regarding **claims 3 and 15**, with the features of parent claims 2 and 14 addressed above, respectively, Maggenti discloses where the step of sending device update data from the MSC to the BS in an IP message includes sending the device data to a multicast group address that comprises a multicast group designation, a device data type for the device update data, and a Base Station Identification (BSID) ***(column 10, lines 7-16 discloses the indication can be generated by base station 104 by creating a message using the information contained within the request, such as an identification of the multicast group to which membership is sought. The indication is then created, comprising the identified multicast group. Other information may be included in the indication, such as the time the request, or the indication was generated, an identification of the WCD sending the request, and/or a location of the requesting WCD such as base station that the requesting WCD is operating. The location of the base station indicates its identification. The data type is understood to be included since it is a request of a specific task. Maggenti also discloses the indication can be generated at MSC 102)***.

Regarding **claim 4** with the features of parent claim 3 addressed above, Maggenti discloses wherein the step of sending the device data to a multicast group address includes sending the device data to a multicast group address that includes a BSID that indicates that the update is applicable to a plurality of BSs in the network ***(column 10, lines 7-16 discloses that information may be included in the***

indication, such as the time the request, or the indication, was generated, an identification of the WCD sending the request, and/or a location of the requesting WCD such as base station that the requesting WCD is operating).

Regarding **claims 5 and 16**, with the features of parent claims 4 and 15 addressed above, respectively, Maggenti discloses where the step of sending the device data to a multicast group address that includes a BSID that indicates that the update is applicable to a plurality of BSs in the network includes sending the device data to a multicast group address that includes a BSID that indicates that the update is applicable to all BSs in the MSC's exchange ***(column 19, lines 3-10 discloses that when a wireless device requests a multicast group, the request is provided to only the subset of wireless devices are included in the multicast group. This means that if all base stations make requests to the MSC for that multicast group, the multicast group address must accommodate all applicable base stations)***.

Regarding **claim 6** with the features of parent claim 2 addressed above, Maggenti discloses where the step of joining the BS in a multicast group includes the step of joining the BS in a plurality of multicast groups, each of said multicast groups receiving a different type of device update data ***(column 11, lines 8-16 discloses wireless communication device sending (WCD) a membership report to base station 104 indicating all multicast groups to which it currently belongs. The membership report also includes any additional multicast groups that the WCD would like to join. The base station forwards the membership report to MSC 102, meaning it will accept all multicast groups that its WCDs belong to)***.

Regarding **claim 7** with the features of parent claim 6 addressed above, Maggenti discloses wherein the step of joining the BS in a plurality of multicast groups includes the steps of: joining the BS in a first multicast group that receives device update data for Digital Control Channels (DCCHs); and joining the BS in a second multicast group that receives device update data for Digital Traffic Channels (DTCs) ***(column 8, lines 22-26 discloses the request to join a particular multicast group may be transmitted on a shared access channel, a dedicated traffic channel, a control channel, an SMS channel)***.

Regarding **claim 8** with the features of parent claim 1 addressed above, Maggenti discloses where before the step of simultaneously updating the plurality of devices by the BS, the step of determining whether the devices are to be updated immediately or at a specified time ***(column 11, lines 18-25 discloses that base station 104 does not immediately send the first membership report to other WCDs. The base station 104 waits until at least one other membership report (a second membership report) is received from a second WCD operating in the same geographic region as the first WCD. In another embodiment, base station 104 waits until at least a second membership report is received from a WCD operating in the same base station coverage area as the first WCD)***.

Regarding **claim 9** with the features of parent claim 1 addressed above, Maggenti discloses where the step of simultaneously updating the plurality of devices by the BS includes the steps of determining whether the device update data is directed to a single device in the BS or a plurality of devices in the BS, and simultaneously updating

the plurality of devices upon determining that the device update data is directed to a plurality of devices in the BS ***(column 9, lines 1830 discloses WCD requests addition to a particular multicast group is forwarded to all, or a subset of all WCDs within the coverage area of the base station receiving the request. For example, if WCD 306 sends a request to base station 104 to receive a specific multicast, base station 104 will forward the request to the MSC and will also provide an indication of the request to all, or a subset of all WCDs within the coverage area of base station 104. If another WCD operating within the coverage area of base station 104 wishes to join the same multicast group, there is no need to transmit a request. This indicates if a single device or plurality of devices belonging to a BS requires update data)***.

Regarding **claims 10 and 19,** with the features of parent claims 1 and 17 addressed above, Maggenti discloses where the step of sending device update data from the MSC to the BS in an IP message includes sending the device update data in an IP broadcast message ***(column 8, lines 60-65 discloses the multicast information is provided to all wireless communication devices (WCD) within the coverage area using a broadcast channel)***.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 11-13, 20, 23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maggenti in view of Harsch (US 6,212,175).

Regarding **claims 11, 20, and 23** with the features of parent claims 10, 19, and 21 addressed above, respectively, Maggenti discloses the use of broadcasting ***(column 8, lines 60-65 discloses the multicast information is provided to all wireless communication devices (WCD) within the coverage area using a broadcast channel)***.

Maggenti fails to expressly disclose the step of assigning the BS to monitor a User Datagram Protocol (UDP) port for device update data.

Harsch, however, discloses a wireless network communications system that includes the step of assigning the BS to monitor a User Datagram Protocol (UDP) port for device update data ***("Used in conjunction with the IP may be a User Datagram Protocol (UDP)", column 2, lines 27-30)***.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Maggenti's apparatus to have the feature of assigning the base station to monitor a User Datagram Protocol port for device update data, as taught by Harsch. The motivation is a system that allows for distinguishing messages among multiple destinations, as disclosed by Harsch on column 2, lines 30-32.

Regarding **claims 12 and 13,** with the features of parent claim 11 addressed above, Maggenti further discloses the step of assigning the BS to monitor a UDP port

for device update data includes the steps of assigning the BS to monitor a first UDP port for a first type of device update data, and assigning the BS to monitor a second UDP port for a second type of device update data. The BS is assigned to monitor a third UDP port for device update data of the first type that is directed to a plurality of BSs in the network, and the BS is further assigned to monitor a fourth UDP port for device update data of the second type that is directed to a plurality of BSs in the network ***(column 11, lines 8-16 of Maggenti discloses wireless communication device sending (WCD) a membership report to base station 104 indicating all multicast groups to which it currently belongs. The membership report also includes any additional multicast groups that the WCD would like to join. The base station forwards the membership report to MSC 102, meaning it will accept all multicast groups that its WCDs belong to. Maggenti, as modified, uses a UDP port for each type of device update data)***.

Regarding **claim 26** with the features of parent claim 24 addressed above, Maggenti further discloses where the BS includes at least one User Datagram Protocol (UDP) port for monitoring IP broadcast messages, and the step of sending device update data from the MSC to each of the plurality of devices in an IP message includes sending the device update data in an IP broadcast message ***(column 8, lines 60-65 discloses the multicast information is provided to all wireless communication devices (WCD) within the coverage area using a broadcast channel)***.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patent is cited to show the state of the art with respect to the use of multicasting in wireless networks:

US Patent (6,424,638) to Ray et al

US Patent (6,542,755) to Tsukagoshi

US Patent (6,434,396) to Rune

US Patent (6,654,359) to La Porta et al

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Nguyen whose telephone number is 703-305-0369. The examiner can normally be reached on 9am-6pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 703-305-4798. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

AVN
January 30, 2004

RICKY NGO
PRIMARY EXAMINER